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EXAMINER

SALCE, JASON P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/675,415	Applicant(s) BASAWAPATNA ET AL.	
	Examiner Jason P. Salce	Art Unit 2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-45, 49-54, 57-59, 61, 84-90, 92, 93, 96-100, 102 and 125-130 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 84-90, 92, 93, 96-100, 102 and 128-130 is/are allowed.
- 6) ☒ Claim(s) 43-45, 49-54, 57-59, 61 and 125-127 is/are rejected.
- 7) ☒ Claim(s) 128 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 4/27/2009 have been fully considered but they are not persuasive.

Applicant has amended claim 43 to recite, "***in response to the request, a programmable converter in the local service module converting the at least one digital video channel or the at least one analog video channel***". The Examiner notes that Rakib reads on the added "programmable converter" limitation.

Rakib discloses that the gateway 308 in Figure 3 is capable of receiving a downstream message to customer #N gateway telling it which channel and subchannel(s) on which it will find the requested program/service (**see step 372 in Figure 5B**), therefore the customer gateway is a programmable converter by receiving messages instructing which channel to tune to receive a media program.

Claim Objections

Claim 84 is objected to because of the following informalities: Lines 17-18 recite "the combiner modules", which correspond to the combiner means, but not positively recited. Appropriate correction is required.

The Examiner recommends amending the claim to recite, "***from combiner modules of the combiner means***".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 43-45, 49-54, 57-59, 61 and 125-127 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. Patent No. 6,889,385) in view of Laksono (U.S. Patent No. 6,286,142).

Referring to claim 43, Rakib discloses receiving, at a local service module (**see gateways 20/30 in Figure 1**) located in a neighborhood (**note that the gateways 20/30 are located within a home, which is in turn located in a neighborhood (a surrounding nearby region)**), a multiplexed channel signal that includes an internet connectivity channel and at least one digital video channel and at least one analog video channel (**see HFC channel 316 in Figures 3 and 8, wherein Figure 8 teaches that a received signal from the HFC channel 316 is split into a DOCSIS channel (see Column 25, Lines 32-35 for the DOCSIS channel carrying Internet data), HFC Digital Video channel and an HFC CATV Analog Video channel**).

Rakib also discloses separating by the local service module, the internet connectivity channel from the multiplexed channel signal to output an internet connectivity channel signal (**see DOCSIS modem module 986 in Figure 8 and Column 56, Lines 59-65, which only is used form receiving Internet data (see**

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again Column 25, Lines 32-35) over the DOCSIS channel, therefore, the DOCSIS modem module 986 separates the DOCSIS data from the multiplexed channel signal transmitted over the HFC channel 316).

Rakib also discloses receiving, at the local service module, via a two-way communications path from at least one of a plurality of room interface units located within the neighborhood and serviced by the local service module, a request to transmit the at least one digital video channel or the at least one analog video channel (***see Column 23, Line 64 through Column 24, Line 22 for the Gateway 308 including circuitry to carry DOCSIS data on downstream and upstream carriers, wherein the DOCSIS data includes requests for video-on-demand (see Column 24, Lines 49-56 for the video-on-demand request originating from the wireless keyboard at customer premises #2 in Figure 3), video conferencing or wideband internet access).***

Rakib also discloses that in response to the request, a programmable converter (***see step 372 in Figure 5B)*** in the local service module converts the at least one digital video channel or the at least one analog channel from its frequency within the multiplexed (***HFC)*** channel signal to a video signal that can be transmitted to a customer's premises (***see Column 32, Line 52 through Column 33, Line 22 for extracting analog and digital video and DOCSIS data from the HFC transmission medium and converting these signals to be distributed over a LAN)***), thereby teaching that the converted signal corresponds to the at least one of the plurality of room interface units making the request (***see set top box 18/20 in Figure 1 for a***

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plurality of room interfaces and Column 24, Lines 49-54 for making a request from one of the plurality of room interfaces).

Rakib also discloses transmitting both the internet connectivity channel signal and the converted video signal to the at least one of the plurality of room interfaces (**see Column 24, Lines 14-22, Figure 8 and Column 56, Line 59 through Column 57, Line 23 for transmitting digital video, analog video and DOCSIS (*internet connectivity*) data to a plurality of set top boxes).**

However, Rakib is silent as to converting a digital or analog video signal to a predetermined frequency for transmission to a client device, combining by the local service module, the internet connectivity channel signal and the converted video signal having the predetermined frequency and transmitting by the local service module, the combined signal to the at least one to the plurality of room interface units. In other words, Rakib only discloses that a LAN is used to distribute the signals to a plurality of room interfaces, but is silent as to how the signals are transmitted over the LAN.

Laksono teaches a home network system similar to Rakib (**see Figure 5 and Column 10, Line 52 through Column 11, Line 24 and Column 17, Lines 6-12 for a home entertainment distribution system, which includes a multimedia server similar to Rakib's gateway device**). Laksono further teaches converting digital or analog video signals to a predetermined frequency (**see Column 18, Lines 14-29, Column 32, Lines 23-41 and Column 33, Lines 16-41 and Figures 20-21 for converting the incoming multimedia data from various sources into a different frequency using a different modulation and transmission technique**) that

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corresponds to the at least one of the plurality of room interface units making the request (**see Figure 5, Figures 20-21 and Column 33, Lines 35-37 for multiple client modules 134-142**).

Laksono also teaches combining by the local service module, the internet connectivity channel signal and the converted signal having the predetermined frequency (**see channel mixer 342 at Figure 10 and Column 18, Lines 14-21 and Column 18, Lines 40-46 for combining the various multimedia data from multiple sources and providing the multimedia data to the client modules 134-142, wherein the multimedia data includes converted video data and Internet data**).

Laksono also teaches transmitting by the local service module, the combined signal to the at least one of the plurality of room interface units (**see transceiving module 346 in Figure 10 at Column 18, Lines 22-29 for transmitting the multimedia data to a plurality of client modules**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the home gateway, as taught by Rakib, using the multimedia server components, as taught by Laksono, for the purpose of providing a wide variety of transmission types including broadcast transmission, asymmetrical transmissions and symmetrical transmissions (**see Column 1, Lines 24-29 of Laksono**).

Referring to claim 44, Rakib discloses passing the at least one digital video channel through a band pass filter with a narrow frequency band (**see HFC digital video module 988 in Figure 8, which passes a digital video channel through a filter that extracts only the a frequency band that contains digital video signals**).

Referring to claim 45, Rakib discloses that the narrow frequency band is centered at the output of a programmable converter within the local service module (**see the rejection of claim 44 and further note that the narrow frequency band filtered by the HFC video module 988 is centered at a plurality of frequencies, which only contains the digital video signals, therefore since the frequency band is extracted by HFC video module 988 (controlled by processor 968 in Figure 8) within the local service module (gateway), the extracted narrow frequency band is centered at the output of a programmable converter within the local service module**).

Referring to claim 49, Rakib discloses that a multiplexed channel further includes a DOCSIS forward channel carried from an Internet service provider to a customer (**see Column 24, Lines 14-18**) and converting the DOCSIS forward channel to a different frequency than the frequency of the DOCSIS forward channel within the multiplexed channel signal (**see Column 24, Lines 23-40 and Column 33, Lines 6-22**).

Referring to claim 50, Rakib discloses receiving, via the two-way communications path from the at least one of the plurality of room interface units, information for selecting a certain channel (**see Figures 9A through 9E**).

Referring to claim 51, see the rejection of claim 49 and further note that Rakib teaches that the information received from the at least one of the plurality of room interface units further includes a DOCSIS return channel for transmission to an Internet service provider (**see Column 24, Lines 14-22**).

Referring to claim 52, Rakib discloses that the information for selecting a certain channel includes information identifying a frequency corresponding to the certain channel within the multiplexed channel signal (**see steps 736 through 740 and steps 744 and 792-796 in Figures 9D and 9E**).

Referring to claim 53, Rakib discloses tuning to the frequency corresponding to the certain channel within the multiplexed channel signal (**see step 744 in Figure 9D**).

Referring to claim 54, Laksono discloses converting the frequency corresponding to the certain channel within the multiplexed channel signal from a first frequency to a second frequency corresponding to the at least one of the plurality of room interface units (**see Column 18, Lines 14-29, Column 32, Lines 23-41 and Column 33, Lines 16-41 and Figures 20-21 for converting the incoming multimedia data from**

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various sources into a different frequency using a different modulation and transmission technique).

Referring to claim 57-58, Rakib discloses that the two-way communications path is a coaxial cable (**see downstream medium 26 in Figure 1 and Column 10, Lines 10-11**).

Referring to claim 59, Rakib discloses that the request to transmit the at least one digital video channel takes the form of a signal received at the predetermined frequency (**see steps 706-712 in Figure 9A**).

Referring to claim 61, Rakib discloses processing the channel selection information to obtain the at least one digital video channel from the multiplexed channel signal (**see Column 4, Line 63 through Column 5, Line 2**).

Referring to claim 125, Rakib discloses filtering the multiplexed channel signal with a bandpass filter to allow substantially only a DOCSIS forward channel signal for the corresponding room interface unit to pass through (**see the rejection of claims 44-45 and the HFC digital video module 988 in Figure 8**).

Referring to claim 126, Rakib discloses receiving a DOCSIS return channel signal and providing a frequency-selectable return signal back to the CMTS (**see**

Column 24, Lines 8-22 for providing a DOCSIS return channel and Column 32, Lines 54-58 for the DOCSIS return channel carrying frequency-selectable upstream signals in the range from 0 to 50 Mhz).

Referring to claim 127, Rakib discloses that the frequency-selectable return signal has a range of 10-45 MHz (**see the rejection of claim 126**).

Claims 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. Patent No. 6,889,385) in view of Laksono (U.S. Patent No. 7,200,855) in further view of Margulis (U.S. Patent No. 6,253,503).

Referring to claims 46-48, Rakib and Laksono disclose all of the limitations in claim 43, but fail to teach receiving the digital video channel from a PVR, VOD Server or a Personal Computer.

Margulis discloses a system that receives broadcast signals from various sources (**see Figure 1**), similar to the system of Rakib and Laksono. Margulis further teaches that signals also received from a PVR, a VOD Server and a PC, can also be obtained and sent to a device similar to the receiving units (**of Rakib and Laksono**) and then to a TV 152 (**see Figure 1**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the communications controller 30 that receives various video signals from various sources in a single multiplexed channel, as taught by Rakib and Laksono, to include the PC, VOD Sever and PVR, as taught by Margulis, for the

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purpose of benefiting a system user by providing an abundance of program material for selective viewing (**see Column 1, Lines 53-56 of Margulis**).

Claims 55 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. Patent No. 6,889,385) in view of Laksono (U.S. Patent No. 7,200,855).

Referring to claim 55, Rakib and Laksono disclose all of the limitations in claim 43, but fail to teach that a digital video channel includes MPEG-4 encoded information.

The examiner takes Official Notice to the fact that MPEG-4 encoded information is transmitted in a digital video channel to viewers in a television transmission system.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal transmitted from network 40, as taught by Rakib and Laksono, to include a signal encoded using the MPEG-4 standard, as taught by the examiner Official Notice, for the purpose of providing video data of improved quality while occupying less bandwidth to transmit said video data.

Referring to claims 60, Rakib and Laksono fail to teach assembling and transmitting the digital video signal over a single frequency multiplexed transmission signal.

The examiner takes Official Notice to the fact that when digital signals are transmitted over a network, it is well known to include supplemental content with the

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digital video signal to display to the viewer by multiplexing the additional data with the digital video signal.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal transmitted within the home, as taught by Rakib and Laksono, to include additional/supplemental data by multiplexing the additional/supplemental data with the digital video signal, as taught by the examiner Official Notice, for the purpose of displaying advertisement or product purchase data to viewer in order to entice the viewer to buy the advertising companies product.

Allowable Subject Matter

Claims 84-90, 92-93, 96-100, 102 and 128-130 are allowed.

The following is an examiner's statement of reasons for allowance:

In regards to claims 84-90, 92-93, 96-100 and 102, the prior art of record fails to anticipate or rendered obvious the specific architecture of an input diplexer, divider module, request module, conversion modules and a plurality of combiner modules coupled in the specified manner, as recited in the claims (**note Figure 3 of Applicant's specification for an illustrative example of the architecture specified in the system of claim 84**).

In regards to claims 128-130, see the reasons for allowance of claims 84-90, 92-93, 96-100 and 102 stated above. Further note that the claims are written in a form invoking 112 6th Paragraph, which further requires the Examiner to adhere to the

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components/structure, specified in Figure 3 of Applicant's specification (**see MPEP 2181 [R-6]**), which correspond to the functionality recited in claim 128.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The Examiner further notes that while independent claim 43 has been rejected using Rakib in view of Laksono, independent claim 43 lacks the specific architecture claimed in independent claims 84 and 128. The combination of Rakib and Laksono is only used to reject the functional limitations set forth in the method of claim 43. Rakib and Laksono fail to recite specific architecture of an input diplexer, divider module, request module, conversion modules and a plurality of combiner modules coupled in the specified manner.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason P Salce/
Primary Examiner, Art Unit 2421

Jason P Salce
Primary Examiner
Art Unit 2421

August 5, 2009